TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 40313

I. INTRODUCTION

This Class II renewal permit is for the operation of the Texas Hill Gin, a cotton gin facility owned and operated by Anderson Clayton Corporation. This is a stationary facility.

A. Company Information

1.	Company Address:	Anderson Clayton Corporation P.O. Box 12506 Fresno, CA 93778
2.	Facility Address:	45884 E. County 2nd St. Roll, Yuma County, AZ 85347

B. Background

This permit will supersede Class II Air Quality Permit #94031-89.

II. FACILITY DESCRIPTION

A. Process Description

Raw cotton arrives at the ginning facility in module blocks, which yield approximately 12 to 17 bales, or trailers which may yield from one to four bales. The process in the cotton gin is to clean, dry if needed and remove all foreign matter and seed from the lint. The lint is then baled in 500 lb (pound) bales and shipped out for use in the clothing industry. Raw cotton, seed and trash are transported through the ginning system pneumatically. The cleaning process is either a scrubbing action between spiked cylinders and grid racks, or a centrifugal action where the cotton goes around a saw type cylinder and the trash is slung out. Separation of the lint from the seed is done at the gin stand where the gin saw goes through a rib configuration with clearance that allows the lint to pass but not the seed. Drying of the cotton, if needed, is accomplished by the addition of hot air into the pneumatic flow of the cotton. Three propane fired burners provide the heated air.

Operation of the cotton gin is seasonal and usually starts around the third week of August and runs until the first of the year. During the operating season the gin will run 24 hours per day, seven days per week, with two hours per day of maintenance.

B. Air Pollution Control Equipment

Particulate emissions from the cotton processing equipment are controlled by the use of cyclones.

III. COMPLIANCE HISTORY

No air quality violations are associated with this facility at this time. The facility is in compliance and there are currently no outstanding air quality enforcement issues.

IV. EMISSIONS

The factors used to calculate particulate emissions from the ginning operations were taken from Table 9.7-1 of AP 42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources. Factors used to calculate emissions from the propane burners were taken from Table 1.5-1 of the same reference.

The calculated potential to emit (PTE) particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns (PM_{10}) for this facility when operating 8,760 hours per year with pollution control cyclones in service, is less than 100 tons per year. The facility is therefore classified as a Minor Source. The facility will further reduce emissions by accepting a voluntary production limitation of 50,000 bales per year of cotton. At a production capacity of 25 bales per hour the limitation of 50,000 bales per year equates to 2,000 hours per year of operation. The source has accepted a voluntary limitation on use of each propane burner to 2,000 hours per year.

These emission values are represented in Tables 1 and 2 below.

TABLE 1: Facility Wide PM_{10} Emissions

Operations *(hours per year)*	**PM_{10}** *(tons/year)*
8,760	98
2,000	22

TABLE 2: Propane Burner Emissions

Operations *(hours/year)*	**PM** *(tons/year)*	**PM_{10}** *(tons/year)*	**NOx** *(tons/year)*	**CO** *(tons/year)*	**SOx** *(tons/year)*	**VOC** *(tons/year)*
8,760	0.172	0.172	6.03	0.819	0.646	0.129
2,000	0.039	0.039	1.38	0.187	0.148	0.030

V. APPLICABLE REGULATIONS

The applicable regulations listed in Table 3 below were identified by the Department. If necessary, the source is required to list any additional regulations that may be applicable.

Table 3: Verification of Applicable Regulations

Unit	Control Device	Rule	Verification
Cotton Gin Facility	Cyclones	A.A.C. R18-2-729	This standard is applicable to all Cotton Gins.
Mobile Sources	Water and other equivalent controls	A.A.C. R18-2-801 R18-2-802 R18-2-804	These regulations are applicable to all mobile sources
Fugitive Dust Sources	Water and other equivalent controls	A.A.C. R18-2-602 R18-2-604 R18-2-605 R18-2-606 R18-2-607 R18-2-614 R18-2-702	These standards are applicable to all fugitive dust sources.
Other Periodic Activities	Particulate Matter control, proper selection of approved paint materials, hazardous air pollutant control	A.A.C. R18-2-702.B1 R18-2-726 R18-2-727 R18-2-1101.A.8	These standards are applicable to all periodic activities including abrasive blasting, use of paints and demolition/renovation of asbestos-containing buildings.

V. PREVIOUS PERMITS AND CONDITIONS

A. Previous Permits

Table 4: Previous Permit

Date of Permit Issuance	Permit Number	Application Basis
November 15, 1989	94031-89	Operating permit

B. Previous Permit Conditions

The previous permit, Permit Number 94031-89, was issued on November 15, 1989. Since the permitting process has changed significantly since that time, the Department did not rely on the previous permit in establishing the current permit conditions.

VI. MONITORING REQUIREMENTS

A. Cotton Gin

The Permittee is required to perform monthly visual surveys of the emissions when the gin is in operation. If the survey indicates that emissions may be exceeding the opacity limit, the permit requires the Permittee to perform a 6-minute EPA Reference Method 9 observation. The Permittee must report all 6-minute periods during which the visible emissions exceed the opacity standard.

B. Fugitive Dust Sources

The Permittee is required to perform monthly visual surveys of the emissions when the gin is in operation. If the survey indicates that emissions may be exceeding the opacity limit, the permit requires the Permittee to perform a 6-minute EPA Reference Method 9 observation. The Permittee must report all 6-minute periods during which the visible emissions exceed the opacity standard.

VII. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
CO ..... carbon monoxide
EPA ..... Environmental Protection Agency
hr ..... hour
lb ..... pound
lb/hr ..... pound(s) per hour
NOx ..... nitrogen oxides
PM ..... particulate matter
PM_{10} ..... particulate matter less than 10 microns
PTE ..... potential-to-emit
SOx ..... sulfur dioxide
tpy ..... ton(s) per year
VOC ..... volatile organic compounds